

WHAT IS CLAIMED IS:

1. A patch bag comprising a heat-shrinkable patch adhered to a heat-shrinkable bag, the heat-shrinkable patch comprising a first heat-shrinkable film and the heat-shrinkable bag comprising
5 a second heat-shrinkable film, the first heat-shrinkable film comprising:

A) a first component comprising an ethylene/alpha-olefin copolymer having a density greater than about 0.915 g/cm^3 in an amount of at least about 5 percent, based on a total weight of the first film; and

B) a second component comprising heterogeneous ethylene/alpha-olefin copolymer having a
10 density of less than about 0.915 g/cm^3 , wherein the second component is present in the first film in an amount of at least about 5 percent, based on the total weight of the first film; and

wherein the first and second components together make up at least 70 percent of the total weight of the first film.

2. The patch bag according to Claim 1, wherein the first component and the second component are present in separate layers of the first heat-shrinkable film.

3. The patch bag according to Claim 1, wherein the first heat shrinkable film has a layer
20 containing a blend of the first component and the second component, wherein the first component is present in the blend in an amount of from about 5 to 95 percent, based on the weight of the layer, and the second component is present in the blend in an amount of from about 5 to 95 percent, based on the weight of the layer, and wherein the first component and the second component together make up at least 70 percent of the total weight of the layer.

4. The patch bag according to Claim 3, wherein both the first and second heat-shrinkable films each have a total free shrink, at 185°F, of at least 35 percent, and the first component comprises linear low density polyethylene in an amount of from about 10 to 50 percent, based on total blend weight, and the second component comprises very low density polyethylene in an amount of from about 50 to 90 weight percent, based on total blend weight, with the blend optionally comprising a homogeneous ethylene/alpha-olefin copolymer having a density of from about 0.88 to 0.915 g/cm³ in an amount of from about 0 to 30 percent, based on total blend weight, with the blend being present in an amount of at least 70 weight percent, based on layer weight, in a layer having a thickness of at least about 0.6 mil.

5. The patch bag according to Claim 3, wherein the blend comprises very low density polyethylene in an amount of from about 60 to 95 weight percent, based on total blend weight, and linear low density polyethylene in an amount of from about 5 to 40 percent.

6. The patch bag according to Claim 3, wherein the blend comprises at least 75 percent of the patch, based on total patch weight.

7. The patch bag according to Claim 3, wherein the patch bag exhibits a Standard Rib Drop Test failure rate of less than 35 percent.

8. The patch bag according to Claim 3, wherein the patch is substantially free of homogeneous ethylene/alpha-olefin copolymer.

9. The patch bag according to Claim 3, wherein the blend comprises homogeneous ethylene/alpha-olefin copolymer in an amount of from about 1 to about 20 percent, based on blend weight.

5

10. The patch bag according to Claim 3, wherein the blend further comprises up to 15 weight percent of at least one member selected from the group consisting of slip, filler, pigment, dye, radiation stabilizer, antioxidant, fluorescence additive, antistatic agent, elastomer, and viscosity-modifying agent.

10

11. The patch bag according to Claim 3, wherein the patch comprises very low density polyethylene in an amount of from about 70 to 80 weight percent, and linear low density polyethylene in an amount of from about 20 to 30 weight percent.

15

12. The patch bag according to Claim 3, wherein the patch is a monolayer film.

13. The patch bag according to Claim 3, wherein the bag comprises a first biaxially-oriented, heat-shrinkable film comprising an outside abuse layer, an inner O₂-barrier layer, and an inside-sealant layer, and the patch comprises a second biaxially-oriented, heat-shrinkable film.

20

14. The patch bag according to Claim 3, wherein the patch is adhered to an outside surface of the bag.

543
B3
15. The patch bag according to Claim 3, wherein the first heat-shrinkable film has an impact strength of at least 0.6 Joules per mil.

16. The patch bag according to Claim 3, wherein the patch is a multilayer film.

5
17. The patch bag according to Claim 16, wherein the patch film comprises outer layers each of which comprises the blend, and an inner layer comprising at least one member selected from the group consisting of ethylene/unsaturated ester copolymer, homogeneous ethylene/alpha-olefin copolymer, ethylene/unsaturated acid copolymer, and ionomer.

10
18. The patch bag according to Claim 16, wherein the multilayer film comprises an inner layer welded to itself and outer layers each comprising the blend.

15
19. The patch bag according to Claim 18, wherein the inner layer welded to itself comprises ethylene/vinyl acetate copolymer in an amount of at least 50 percent, based on the weight of the inner layer.

20
20. The patch bag according to Claim 19, wherein the ethylene/vinyl acetate copolymer comprises vinyl acetate in an amount of from about 3 to 50 weight percent, based on the weight of the ethylene/vinyl acetate copolymer.

21. The patch bag according to Claim 16, wherein the multilayer film comprises at least two layers which comprise the blend.

22. The patch bag according to Claim 16, wherein the multilayer film has a symmetrical cross-section.

5 23. The patch bag according to Claim 22, wherein the multilayer film comprises an inner layer comprising ethylene/vinyl acetate in an amount of from about 50 to 100 percent, and the film further comprises two outer layers, each of which contains the blend.

10 24. The patch bag according to Claim 23, wherein the blend comprises very low density polyethylene in an amount of from about 70 to 80 percent and linear low density polyethylene in an amount of from about 20 to 30 percent.

25. The patch bag according to Claim 24, wherein the patch further comprises an intermediate layer which also comprises the blend.

ADD E2